

SHIP: USS LASALLE (AGF-3)

ITEM NO: 255-30-002

COAR: 16-537

PCN: EM02-Z002

CMP: NONE

SURVEYOR: HARRELL

1. SCOPE:

1.1 Title: Main Feed Booster Pump; repair

1.2 Location of Work:

1.2.1 Main Machinery Room Number 2 (7-136-0-E)

1.3 Identification:

1.3.1 Quantity (One), Number 2A Main Feed Booster Pump, Mfr. Warren Pumps Inc., Model 3-CV-10, APL 016020572

2. REFERENCES:

a. Standard Items

b. 0347-LP-416-8000, Technical Manual, Main Feed Booster Pumps

c. 03Y3-100 Rev.O, NAVSEA Technical Publication, Pump Repairs Using Polymeric Compounds

3. REQUIREMENTS:

3.1 Remove and dispose of fluids to accomplish the requirements of this work item.

3.2 Remove and disassemble the equipment listed in 1.3, using 2.b for guidance. Retain fasteners for reuse.

3.2.1 Clean exposed parts free of foreign matter leaving no residue or injurious effects.

3.2.2 Inspect each part for wear and defects, using 2.b for guidance.

3.2.2.1 Measure and record sizes and clearances.

3.2.2.2 Include sizes and clearances for wearing parts, bearing surfaces, thrust and journal bearings, seal and packing areas and physical conditions of parts not specified for removal.

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3.2.2.3 Submit four legible copies of a report listing results of the requirements of 3.2.2 through 3.2.2.2 to the SUPERVISOR.

3.2.3 Remove high spots, burrs, abrasions, nicks, corrosion, gasket material and foreign matter from exposed flanges and mating surfaces.

3.2.4 Remove burrs and high spots from exposed sliding surfaces, screw threads, keys and keyways.

3.2.4.1 Chase and tap exposed threaded areas.

3.2.5 Handwork and skim cut machined, sealing, aligning, mating and gasket surfaces, taking precautions to ensure no excessive metal removal.

3.2.6 Straighten each shaft to within 0.002 inch total indicator reading.

3.2.7 Polish machined surfaces in way of repairs.

3.2.8 Clean pockets and passages free of obstructions and foreign matter.

3.3 Accomplish the requirements of 2.c, for the equipment listed in 1.3.

3.4 Assemble, install, adjust, lubricate and connect the equipment listed in 1.3, fitting and installing the following new parts and the retained fasteners in 3.2, in accordance with 2.b:

TOTAL QUANTITY <u>REQUIRED</u>	NAME <u>OF PART</u>	PIECE <u>NO.</u>	REF. <u>NO.</u>	FIGURE <u>DRAWING NO.</u>	PART <u>NO.</u>
One ea.	Ring, Case	4	2.b	1-2	C221
One ea.	Ring, Case	6	2.b	1-2	C222
2 ea.	Ring, Impeller	8	2.b	1-2	B139
One ea.	Shaft	11	2.b	1-2	J208
2 hf.	Ring, Water Seal	12	2.b	1-2	N84
One ea.	Bearing, Sleeve	13	2.b	1-2	L86
2 ea.	Impeller, Nut	14	2.b	1-2	F186
One ea.	Flinger	16	2.b	1-2	Z130
One ea.	Sleeve, Spacer	19	2.b	1-2	EE41
One ea.	Bearing, Ball Thrust	20	2.b	1-2	AL4-1
2 ea.	Gland, Half	25	2.b	1-2	LL83
One ea.	Locknut, Coupling Left Hand	32	2.b	1-2	Q116
One ea.	Key, Coupling 1/4 sq x 1 1/2 lg	35	2.b	1-2	----

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TOTAL QUANTITY REQUIRED	NAME OF PART	PIECE NO.	REF. NO.	FIGURE DRAWING NO.	PART NO.
One ea.	Key, Impleller 3/16 sq x 1 13/16 lg	36	2.b	1-2	N142
One sh.	Gasket, 1/32 thick Mil-A-17472, Sym. 2150	41	2.b	1-2	----
6 ea.	Screw, #8-32 x 3/8 lg, QQ-N-281, Class A	42	2.b	1-2	----
4 ea.	Pin, Taper #6 x 2 1/2 lg	44	2.b	1-2	----
2 ea.	Packing, 3/8 sq	45	2.b	1-2	Anchor #317
3 ea.	Packing, 3/8 sq	46	2.b	1-2	Crane SS #1
One sh.	Gasket, .005 thick Mil-P-20085	64	2.b	1-2	----
One ea.	Pump Coupling Half	67	2.b	1-2	0158
One ea.	Sleeve , Shaft	68	2.b	1-2	D215
One ea.	O-Ring, Neoprene	70	2.b	1-2	Linear #11-214

3.4.1 Fit each wearing ring to corresponding groove in upper and lower casings.

3.4.2 Inspect wearing ring fit. Rings shall not bind and tolerance shall be in accordance with 2.b.

(V)(G) "FINAL CLEARANCES"

3.4.2.1 Inspect wearing ring fit. Wearing rings shall not bind and tolerances shall be in accordance with 2.b.

(V)(G) "VERIFY BALANCE"

3.4.3 Accomplish the requirements of 009-15 of 2.a for each rotating assembly.

3.4.4 Measure and record final sizes and clearances, using 2.b for guidance.

3.4.4.1 Submit four legible copies of a report listing results of the requirements of 3.4.2 through 3.4.4 to the SUPERVISOR.

3.4.5 Accomplish the requirements of 009-58 of 2.a for the equipment listed in 1.3.

3.4.5.1 Fit and install foundation fasteners retained in 3.2.

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(V)(G) "FINAL HOT ALIGNMENT"

3.4.6 Accomplish a final hot alignment to verify doweling did not disturb alignment.

3.4.7 Lubricate each coupling and install new gridmembers, seals and gaskets, using 2.b for guidance.

(V)(G) "PIPING ALIGNMENT"

3.4.8 Align the piping to the equipment. Piping shall be supported independently and shall not impose a strain on the equipment.

3.4.8.1 Fit and install studs, bolts, screws, nuts and washers retained in 3.2, in accordance with 2.b.

3.5 Accomplish the requirements of 009-32 of 2.a for the normally painted new and disturbed surfaces of the equipment listed in 1.3 and respective foundations.

(V)(G) "OPERATIONAL TEST"

3.6 Accomplish an operational test for the equipment listed in 1.3 for 2 continuous hours using 2.b for guidance and under normal operational conditions. Measure and record the following information after all parameters have stabilized:

3.6.1 Temperatures

3.6.2 Pressures

3.6.3 Allowable leakage: None.

3.6.3.1 Submit four legible copies of a report listing results of the requirements of 3.6 through 3.6.3 to the SUPERVISOR.

4. NOTES:

4.1 None.

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5. GOVERNMENT FURNISHED MATERIAL (GFM):

	<u>QTY</u>	<u>UI</u>	<u>NAME OF PART/ DESCRIPTION</u>	<u>PIECE NO.</u>	<u>REF. NO.</u>	<u>NATIONAL STOCK NO.</u>	<u>PARA NO.</u>
5.1	PUSH MATERIAL:						
1.	None.						
5.2	KITTED MATERIAL:						
1.	None.						
5.3	LLTM:						
1.	One	Ea.	Ring, Case	4	2.b	9C4320012900183	3.4
2.	One	Ea.	Ring, Case	6	2.b	9C4320012900184	3.4
3.	2	Ea.	Ring, Impeller	8	2.b	9C4320011228098	3.4
4.	One	Ea.	Shaft	11	2.b	9C4320011243805	3.4
5.	2	Hf.	Ring, Water Seal	12	2.b	9C4320007384375	3.4
6.	One	Ea.	Bearing, Sleeve	13	2.b	9C4320006041990	3.4
7.	2	Ea.	Impeller, Nut	14	2.b	9Z5310011233318	3.4
8.	One	Ea.	Flinger	16	2.b	9C4320011228076	3.4
9.	One	Ea.	Sleeve, Spacer	19	2.b	9G5365011296870	3.4
10.	One	Ea.	Bearing, Ball Thrust	20	2.b	-----	3.4
11.	2	Ea.	Gland, Half	25	2.b	9Z5330011225501	3.4
12.	One	Ea.	Locknut, Coupling Left Hand	32	2.b	9Z5310011233319	3.4
13.	One	Ea.	Key, Coupling	35	2.b	-----	3.4
14.	One	Ea.	Key, Impeller	36	2.b	9Z5315011241333	3.4
15.	One	Sh.	Gasket, 1/32 thick	41	2.b	9Z5330013838033	3.4
16.	6	Ea.	Screw, #8-32 x 3/8 lg	42	2.b	-----	3.4

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17.	4	Ea. Pin, Taper #6 x 2 1/2 lg	44	2.b	-----	3.4
18.	2	Ea. Packing, 3/8 sq.	45	2.b	-----	3.4
19.	3	Ea. Packing, 3/8 sq.	46	2.b	9Z5330013876232	3.4
20.	One	Sh. Gasket, .005 thick Mil-P-20085	64	2.b	-----	3.4
21.	One	Ea. Pump Coupling Half	67	2.b	-----	3.4
22.	One	Ea. Sleeve, Shaft	68	2.b	9C4320006041986	3.4
23.	One	Ea. O-Ring, Neoprene	70	2.b	9Z5331008374362	3.4